

KUSTOM[®]

OWNER'S MANUAL

ARROW 16[™] / ARROW 16R[™]



Congratulations on the purchase of your new Kustom amp! Your Arrow 16 / Arrow 16R model successfully draws on decades of amplifier design and manufacturing experience at Kustom. This amp was planned from the ground up to offer top-notch tone and dependable performance. Inside this manual, you'll find useful information about the amp's features and some suggested settings to illustrate its tonal capabilities. We wish you many years of enjoyment with your Kustom amplifier.

ENGLISH

Danger

Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably to noise induced hearing loss but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposures:

DURATION PER DAY (HOURS)	8	6	4	3	2	1
SOUND LEVEL (dB)	90	93	95	97	100	103

According to OSHA, any exposure in the above permissible limits could result in some hearing loss. Ear plugs or protectors in the ear canal or over the ears must be worn when operating this amplification system in order to prevent a permanent hearing loss. If exposure in excess of the limits as put forth above, to insure against potentially harmful exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of inducing high sound pressure levels, such as this amplification system, be protected by hearing protectors while this unit is in operation.



AVIS: RISQUE DE CHOC ELECTRIQUE-NE PAS OUVRIR.



THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF NON-INSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.



THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE UNIT.



APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

IMPORTANT SAFETY INSTRUCTIONS

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be kept for future reference.
3. Read and understand all warnings listed on the operating instructions.
4. Follow all operating instructions to operate this product.
5. This product should not be used near water, i.e. Bathtub, sink, swimming pool, wet basement, etc.
6. Only use dry cloth to clean this product.
7. Do not block any ventilation openings, It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
8. Do not install this product near any heat sources ;such as,radiators, heat registers, stove or other apparatus (including heat producing amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the Other.A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord being walked on or pinched, particularly at Plugs, convenience receptacles and the point where they exit from the apparatus. Do not break the ground pin of the power supply cord.
11. Only use attachments specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation ports or any other openings.
15. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way; such as, power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally or has been dropped.
16. WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

FRENCH


Danger

L'exposition a des niveaux eleves de bruit peut provoquer une perte permanente de l'audition, Chaque organisme humain reagit differemment quant a la perte de l'audition, mais quasiment tout le monde subit une diminution de l'acuite auditive lors d'une exposition suffisamment longue au bruit intense. Les autorites competentes en reglementation de bruit ont defini les expositions tolerees aux niveaux de bruits:


DURE EN HEURES PAR JOUR	8	6	4	3	2	1
INIVEAU SONORE CONTINU EN dB	90	93	95	97	100	103

Selon les autorites, toute exposition dans les limites citees ci-dessus, peuvent provoquer certaines pertes d'audition. Des bouchons ou protections dans l'appareil auditif ou sur l'oreille doivent etre portes lors de l'utilisation de ce systeme d'amplification afin de prevenir le risque de perte permanente de l'audition, Dans le cas d'expositions superieures aux limites precitees il est recommande, afin de se premunir contre les expositions aux pressions acoustiques l'evenement potentiellement dangeureux, aux personnes exposees aux equipements capables de delivrer de telles puissances, tels ce systeme d'amplification en fonctionnement, de proteger l'appareil auditif.



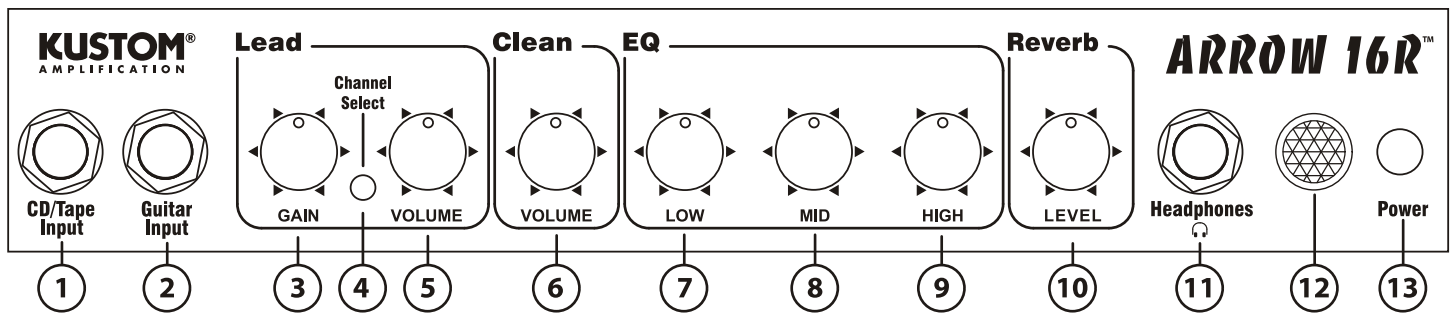
 CE SYMBOLE A POUR BUT D'AVERTIR L'UTILISATEUR DE LA PRESENCE DE VOLTAGE DANGEREUX NON-ISOLE A L'INTERIEUR DE CE PRODUIT QUI PEUT ETRE DE PUISSANCE SUFFISAMMENT IMPORTANTE POUR PROVOQUER UN CHOC ELECTRIQUE AUX PERSONNES.

 CE SYMBOLE A POUR BUT D'AVERTIR L'UTILISATEUR DE LA PRESENCE D'INSTRUCTIONS D'UTILISATION ET DE MAINTENANCE DANS LES DOCUMENTS FOURNIS AVEC CE PRODUIT.

 AFIN DE REDUIRE LES RISQUÉ D'INCENDIE ET DE DECHARGE ELECTRIQUE, NE PAS EXPOSER CET APPAREIL A LA PLUIE OU A L'HUMIDITE.

IMPORTANTES INSTRUCTIONS DE SECURITE

1. Lire avec attention toutes les recommandations et précautions d'emploi avant d'utiliser ce produit.
2. Toutes les recommandations et précautions d'emploi doivent être conservées afin de pouvoir s'y reporter si nécessaire.
3. Lire et comprendre tous les avertissements énumérés dans les précautions d'emploi.
4. Suivre toutes les précautions d'emploi pour utiliser ce produit.
5. Ce produit ne doit pas être utilisé près d'eau, comme par exemple baignoires, éviers, piscine, sous-sol humides ... Etc.
6. Utiliser exclusivement un chiffon sec pour nettoyer ce produit.
7. Ne bloquer aucune ouverture de ventilation. Ne pas placer le produit tout contre un mur ou dans une enceinte fermée, cela générerait le flux d'air nécessaire au refroidissement.
8. Ne pas placer le produit près de toute source de chaleur telle que radiateurs, arrivées d'air chaud, fourneaux ou autres appareils générant de la chaleur (incluant les amplificateurs producteurs de chaleur) .
9. Ne pas négliger la sécurité que procure un branchement polarisé ou avec raccordement à la terre, Un branchement polarisé comprend deux fiches dont l'une est plus large que l'autre. Un branchement à la terre comprend deux fiches plus une troisième reliée à la terre. Si la fiche secteur fournie ne s'insert pas dans votre prise de courant. consulter un 'électricien afin de remplacer votre prise obsolète.
10. Protéger le cordon d'alimentation de tout écrasement ou pincement, particulièrement au niveau des fiches, des réceptacles utilisés et à l'endroit de sortie de l'appareil. Ne pas casser la fiche de terre du cordon d'alimentation.
11. Utiliser uniquement les accessoires spécifiés par le constructeur.
12. Utiliser uniquement avec le chariot de transport, le support, le trépied, la console ou la table spécifiés par le constructeur ou vendus avec l'appareil. Lors de l'utilisation d'un chariot, bouger avec précaution l'ensemble chariot/l'appareil afin d'éviter les dommages d'un renversement.
- 13 Débrancher cet appareil lors d'orages ou s'il n'est pas utilisé pendant une longue période.
14. Des précautions doivent être prises afin qu'aucun objet ne tombe et qu'aucun liquide ne se répande à l'intérieur de l'appareil par les orifices de ventilation ou n'importe quelle autre ouverture.
15. Pour toutes interventions techniques s'adresser à un technicien qualifié. L'intervention technique est nécessaire lorsque l'appareil a été endommagé de n'importe quelle façon, comme par exemple si le cordon secteur ou sa fiche sont détériorés, si du liquide a coulé ou si des objets sont tombés à l'intérieur de l'appareil, si l'appareil a été exposé à la pluie ou à l'humidité, s'il ne fonctionne pas normalement ou s'il est tombé.
16. ATTENTION: Pour réduire le risque d'incendie ou de choc électrique ne pas exposer l'appareil à la pluie ou à l'humidité.



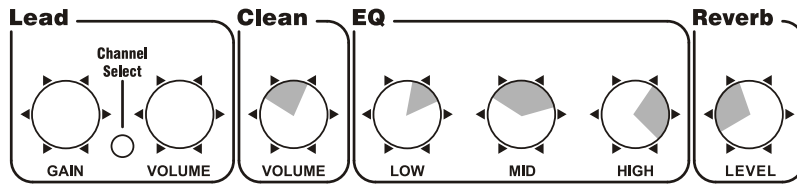
- 1.) **CD/Tape Input** - This 1/4" 3-conductor jack will allow you to plug in a CD player, tape or any other source to practice along with. It sums the left and right signals into a mono signal and passes it through to the amplifier section. To control the volume of the source, adjust the output volume of the device. We suggest you turn the volume all the way down then plug in and adjust the volume according to your taste.
- 2.) **Guitar Input** - This is a 1/4" 2-conductor input jack for plugging in your instrument. It is intended for guitars but will accept other instruments as well.
- 3.) **Lead Gain** - Adjust this clockwise to increase the amount of distortion you add to the overdrive signal. Used in the lower ranges of the control you will get a less distorted sound. As you increase the gain, you add tremendous amounts of distortion to the signal for a harder edged "crunch" tone.
- 4.) **Channel Select Switch** - This switch selects which preamp you are using. It will switch between the Clean and Lead channels.
- 5.) **Lead Volume** - This control is the output volume control for the Lead Channel. It follows the same tone circuit as the other channel. Its gain structure is determined by the lead gain control but this serves as the overall master volume for this channel.
- 6.) **Clean Level** - This is the volume control for the clean channel. Its gain structure is preset for maximum signal before distortion and determines the output level of the amp.
- 7.) **Bass** - This control is the bass control. It is passive and set to shelve frequencies at 100 Hz. This will affect the low frequency signals. Turning it fully clockwise, the signal is left alone. Turning it counterclockwise, the lows will be rolled off.
- 8.) **Mid** - This control is the midrange control. It is passive and set to shelve frequencies at 700 Hz. This will affect the middle frequency signals. Turning it counterclockwise, your signal will "hollow out" the mid frequency, which is popular in today's music.
- 9.) **High** - This control is the high control. It is passive and set to shelve frequencies at 4KHz. This will effect the high frequency signals. Turning it fully clockwise, the signal is left alone. Turning it counterclockwise, the highs will be rolled off.
- 10.) **Reverb Level** - (only on the Arrow16R). This control adds the spring reverb and mixes it into the main signal buss. Reverberation lets the notes "hang in the air" longer, extending the sound.
- 11.) **Headphone Jack** - This is a 1/4" 3-conductor jack for plugging headphones. It will sum the signal and put the sound in both ears, thereby creating a pseudo-stereo sound. Volume will be determined by the volume control on the channel you are on. It will disconnect the internal speaker when plugged into. This will allow quiet practicing.
- 12.) **Jewel Light** - This jewel light lets you know that the amplifier is on.
- 13.) **Power** - This switch turns on and off the AC power to the amp.

Back Panel (not pictured) -

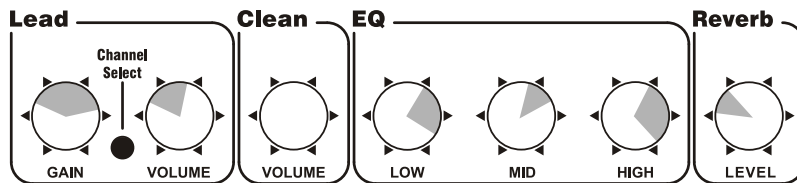
Speaker Out - This is a 2-conductor 1/4" speaker output jack. This will disconnect the internal speaker and allow an external speaker cabinet to be employed. Rating is 8 ohms.

Suggested Settings

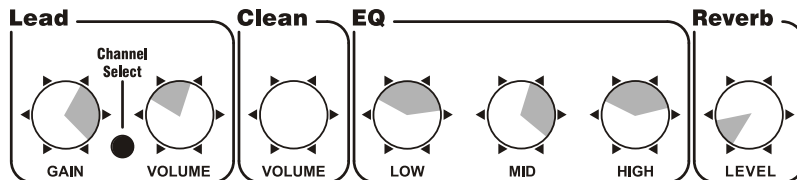
(These settings are general starting points. They are designed to get you close to the sound you are looking for. If the control is not shown, then it doesn't apply to this particular sound.)



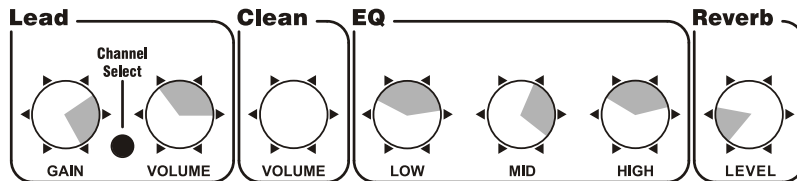
Clean Rhythm/Country Guitar - these settings are for basic clean sounds including rhythm guitar, country lead guitar, and funky/chunky rhythm sounds. Usually, country guitar is a brighter, more treble edged sound. The bottom end depends on what type of guitar you are using. Reverb depends on taste. Rhythm guitar is commonly a clean full sound, using a little less treble than the country sound and a bit more midrange. Reverb, again depends on taste.



Medium-Gain Rock and Blues - this setting is particularly useful in blues or classic rock songs. It is good for leads as well as rhythm parts. It is also useful for power chords. You need to switch to the lead channel to make these settings work. Blues, depending on the guitar you use, usually adds treble but with more midrange and a "fat" bottom end. Adjust the gain control to the amount of distortion you desire. Blues often has a reverb trail on the notes. Adjust to taste.



Alternative/Harder Edged Rock - this setting will deliver more of a cutting tone. Whether used for rhythm or lead sounds, it will "cut" through the drums and get you heard. If you need more "grunge", increase the gain control for more distortion. This style of music requires a slightly thinner, harder edged tone full of midrange. Less reverb is required as it tends to muddy up faster songs. Adjust to taste.



Heavy Metal/Maximum Crunch - this setting is a good starting point for the "notched-out middle" sounds associated with metal and heavy alternative sounds. Adjust the Treble, Lows, and Reverb to taste. Usually, for a rhythm tone, you want to have more lower end and less for leads. Distortion is an integral part of this style of music, so crank up the Gain.

Model	Power	Equalizer	Channels	Impedance	Effects	Amplifier Type	Dimensions	Weight
Arrow 16	16 W	3 Band	Two	8 Ohms	N/A	Bi-Polar transistor	13 ³ / ₈ X 15 ³ / ₄ X 8 ⁵ / ₈ 34x40x22 CM	20 Lbs. 9.1 Kg
Arrow 16R	16 W	3 Band	Two	8 Ohms	Reverb	Bi-Polar transistor	13 ³ / ₈ X 15 ³ / ₄ X 8 ⁵ / ₈ 34x40x22 CM	20 Lbs. 9.1 Kg

KUSTOM

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